

The ICT4Scale initiative: Harnessing ICT to scale-up agricultural solutions

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^a Farm Radio International, Canada; ^b Independent researcher; ^c Farm Radio Trust, Malawi



Poster presented at the Scale Up Conference, Purdue University, West Lafayette, USA, Sept. 25-27, 2018

ABSTRACT

Information and Communication Technologies (ICTs) can play a significant role in enhancing the uptake and impact at scale of agricultural solutions. The speed of diffusion of mobile phones, their declining costs, the increased reach of wireless broadband, and the broader access to technologies by smallholder farmers, indicate the potential of ICTs to give large numbers of people access to timely and relevant agricultural information, financial services, and input and output markets. ICTs also contribute to strengthening social networks while facilitating participation and interactivity through innovation platforms that can support scaling-up initiatives.

The ICT4Scale project, funded by the International Development Research Centre in Canada, aims at developing, testing and sharing a conceptual framework for implementing and assessing gender-responsive ICT-for-scale initiatives in sub-Saharan Africa. Implemented by Farm Radio International, Canada, and Farm Radio Trust, Malawi, the project investigates the use of different combinations of ICTs across past and current scaling-up initiatives to identify best practices and challenges, with an emphasis on gender-related issues. In Malawi, a scaling-up model based on mobile technology and interactive radio platforms that brings together key stakeholders from the public and private sectors while giving women and men farmers a voice, is also being tested.

INTRODUCTION

- Achieving impact at scale remains one of the key challenges facing the international development community.
- Recent years have seen an increase in efforts to develop frameworks to inform the theory and practice of scaling-up initiatives^{1,2,3,4}
- The rapid penetration of mobile phones and their increased access by smallholder farmers⁵, suggest that information and communication technologies (ICTs) could play an important role in enhancing the scaling-up of agricultural solutions⁶.
- Evidence about the ability of ICTs to enhance scaling-up processes remains scarce. In particular, with regards to the issue of the gender digital divide⁷.
- This project aims at developing, testing and sharing a conceptual framework for implementing and assessing gender-responsive ICT-for-scale (ICT4Scale) initiatives in sub-Saharan Africa.
- Project is implemented by Farm Radio International (FRI), Canada, and Farm Radio Trust (FRT), Malawi.

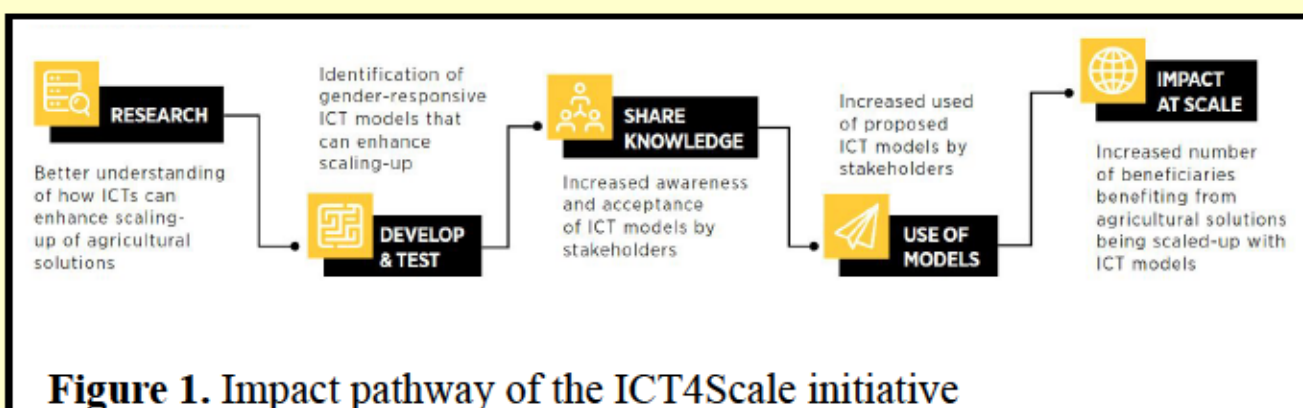


Figure 1. Impact pathway of the ICT4Scale initiative

ICT4SCALE FRAMEWORK

Many theoretical frameworks have been proposed to describe the contribution of ICTs to development outcomes, and can thus inform the building of an ICT4Scale conceptual framework.

Some of the key ICT outcomes to consider include⁸:

- Increased access to relevant and timely public information
- Improved participation and interactivity
- Improved coordination of input and output supply chains
- Improved access by farmers to financial services
- Strengthened social and interpersonal networks
- Strengthened agricultural innovation platforms
- Expanded digital inclusion through systematic consideration of inequalities



The interpretation of these different outcomes within a broader scaling-up conceptual framework (Figure 2) can provide insights into scaling processes and pathways potentially influenced by ICTs.

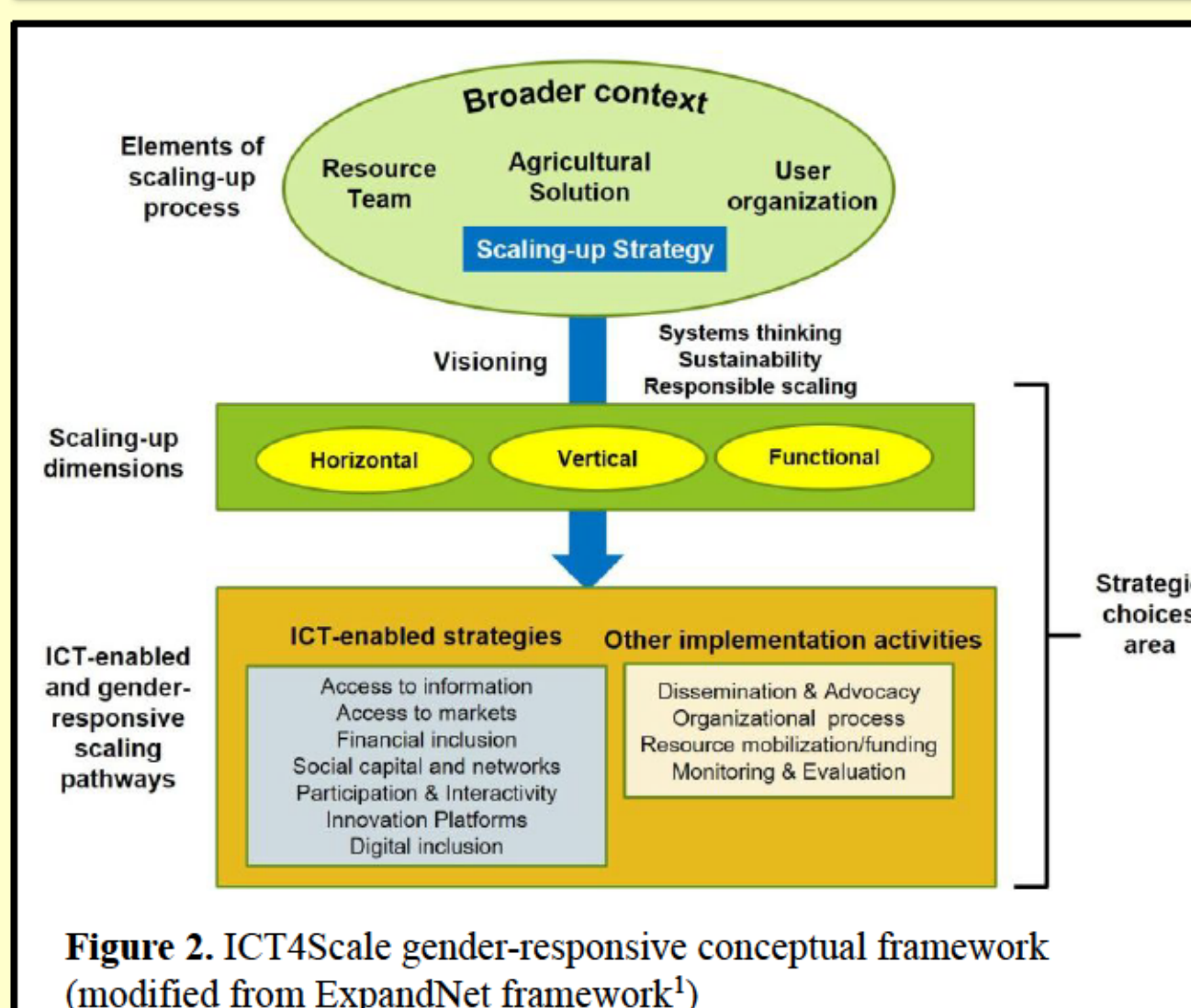


Figure 2. ICT4Scale gender-responsive conceptual framework (modified from ExpandNet framework¹)

RESEARCH QUESTIONS

The ICT4Scale initiative is built around the following research questions:

- What combinations of ICT, actors and institutional arrangements are most effective in scaling agricultural solutions?
- What are the gender equality considerations of ICT-enabled scaling of agricultural solutions?
- What barriers may limit the reach or effectiveness of ICTs in scaling initiatives?

LITERATURE REVIEW

Academic and grey literature on scaling concepts, business models and practices, gender dynamics, and recent advances on scaling solutions using ICT, is being reviewed and synthesized.

META-REVIEW

A Meta-review of current and past scaling-up initiatives using ICTs is being undertaken. From an initial dataset of 72 projects identified in sub-Saharan Africa, Asia, Latin America and the Caribbean, a sub-set of 25 projects has been identified using a set of pre-determined criteria.

The Meta-review includes:

- A content analysis (using NVivo) of project documents using a coding scheme representing the key elements of the ICT4scale conceptual framework
- A series of semi-structured interviews with project implementers

CASE STUDIES

Four of the projects included in the Meta-Review have been selected for the Case Studies. These are limited to projects in sub-Saharan Africa (Malawi, Ghana, Uganda and Ethiopia) and will include more in-depth interviews with rural communities and key informants.

INTERVENTION RESEARCH

The Intervention Research component of the ICT4Scale aims at assessing the effect of a specific combination of ICT interventions and institutional arrangements on the number of smallholder farmers up-taking the application of soybean inoculants. Its implementation will start in October 2018.

Details of Intervention Research

Agricultural solution: Use of soybean inoculant by smallholder farmers

Scaling-up strategy: Combination of mobile telephony and Interactive Radio Platforms⁹ (Participatory Radio Campaigns, SMS, IVR and Call Center) with gender-responsive activities based on FRI's Her Voice on Air approach. The platforms also bring together key stakeholders/institutions involved in agriculture.

Scope of scaling-up initiative: Mchinji District, Malawi

Study design: Baseline and endline household surveys administered following a probabilistic sampling method allowing extrapolation of reach estimates at District level. Comparison of changes in Knowledge, Attitude and Practice for different levels of exposure to the various ICT channels will be made.

LEARNING PLATFORM

The ICT4Scale project is establishing a collaborative learning platform to share the project's lessons and research findings across a diverse set of stakeholders - donors, NGOs, policy makers, researchers, and private businesses both in Canada and internationally, but also to facilitate knowledge sharing among them.

CONTACT: Bernard Pelletier, bpelletier@farmradio.org

REFERENCES

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ACKNOWLEDGMENTS

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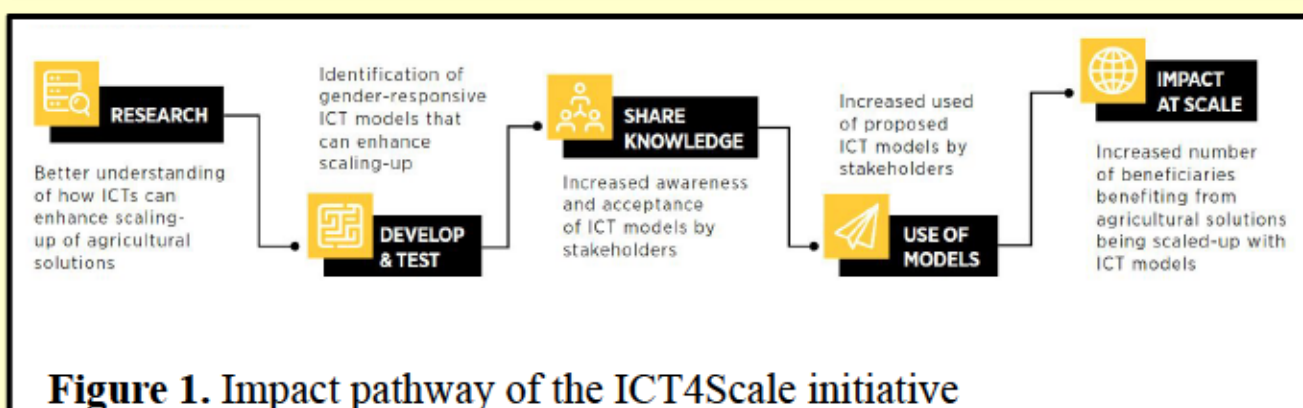


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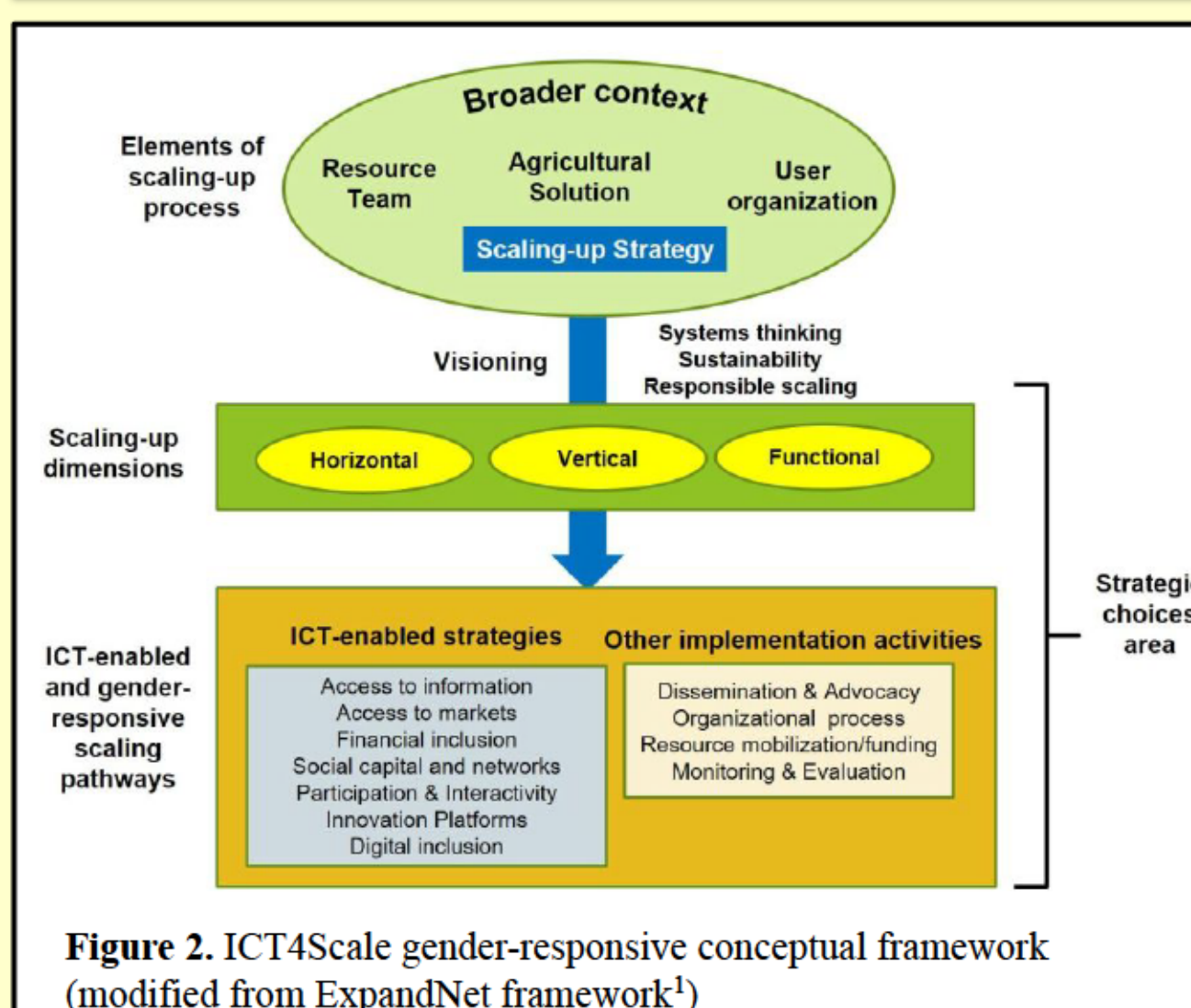


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